

REMARKS

Claims 32-38 were previously pending in this application. Claim 32 is amended herein. New claims 40-48 are added herein. As a result claims 32-38 and 40-48 are pending for examination with claim 32 being an independent claim. No new matter has been added. Support for the claim amendments can be found, for example, at pages 14-15 of the Specification and in Figure 9.

Rejections Under 35 U.S.C. §103

The Office Action rejects claims 32-38 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,029,335 to Fisher et al. (hereinafter “Fisher”) in view of U.S. Patent No. 4,729,076 to Masami et al. (hereinafter “Masami”). Applicants respectfully assert that claims 32-38, as amended herein, are allowable in view of Fisher and Masami either alone or in proper combination.

Independent claim 32 recites “[a]n optical irradiation device comprising a radiation source including a plurality of LEDs thermally connected to a heat pipe and disposed at an end thereof, a unitary thermal connector directly connecting the plurality of LEDs and the heat pipe for conducting heat away from the plurality of LEDs and a power supply configured to provide power to the plurality of LEDs, wherein the heat pipe includes an inner wall configured to accommodate at least a portion of the power supply therewithin.” (Emphasis added.)

At page 4, the Office Action identifies the fact that Fisher does not disclose a heat pipe, and instead relies on Masami for a teaching of a heat pipe. Masami does teach “a heat absorber 12 such as a heat pipe” at col. 2, lines 64-65. For example, Figures 5(E) and 5(F) teach that a heat pipe can be coupled to a board 3 to which a PCB is fixed and to a heat sink 4. The mere teaching of a heat pipe, however, does not teach or suggest an “optical irradiation device comprising ... a power supply configured to provide power to the plurality of LEDs, wherein the heat pipe includes an inner wall configured to accommodate at least a portion of the power supply therewithin,” as recited in claim 32 as amended herein. In contrast, Figure 5(E)(1) of Masami teaches that wiring which is external to the heat pipe is coupled to a remote power

supply. Accordingly, Masami cannot possibly teach or suggest that a heat pipe includes an inner wall configured to accommodate at least a portion of the power supply therewithin.

As indicated above, Fisher does not teach or suggest a heat pipe. Further, Fisher teaches “a laser head which is energized by a power supply through a cable connected to connector 46.” (Col. 11, lines 20-22.) Thus, Fisher also does not teach or suggest a heat pipe includes an inner wall configured to accommodate at least a portion of the power supply therewithin, at least, because the “laser head” of Fisher does not include either a power supply or a heat pipe.

Accordingly, independent claim 32 is patentable in view of the cited references at least because neither Fisher nor Masami either alone or in proper combination teach or suggest all the limitations of claim 32. Each of claims 33-38 directly or indirectly depends from allowable claim 32 and is patentable at least for the same reasons. Accordingly, reconsideration and withdrawal of the rejection of claims 32-38 under 35 U.S.C. §103(a) as being unpatentable over Fisher in view of Masami is respectfully requested.

New Claims

Each of new claims 40-48 directly or indirectly depends from allowable claim 32 and is patentable at least for the same reasons. Accordingly, allowance of claims 40-48 is also respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762 referencing attorney docket number P2034-7007US.

Respectfully submitted,

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